

REMARKS

Claims 1-14 and 16-20 are pending. Claim 15 has been cancelled without prejudice or disclaimer, in favor of new claims 18-20 as supported by, for example, the third full paragraph of page 2 and the final paragraph of page 4. The claims have also been amended to improve readability. No new matter has been added.

I. Election of Species

Applicants confirm the election of Species A and X, corresponding to claims 1, 2, 4, and 6-16. It is Applicants understanding, therefore, that claims 3 and 5 have been withdrawn from consideration at this time. However, upon indication of allowability of generic claim 1, Applicants respectfully request consideration of the additional species.

II. 35 USC § 112

Claim 15 stands rejected under 35 USC § 112, first paragraph, as allegedly failing to comply with the written description requirement. The Office Action asserts the specification fails to describe that the hard particles can be one or more of silicon oxide, silicon carbide and aluminum oxide. However, in light of the cancellation of this claim, Applicants respectfully submit that this rejection is moot. New claims 18-20 recite the same features, but separated into individual claims, rather than the Markush format of claim 15.

III. 35 USC § 103

A. Hansson et al. in view of Scher et al. and/or Pavlin

Claims 1 and 5-17 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over Hansson et al. (U.S. Patent No. 6,465,046) in view of Scher et al. (U.S. Patent No. 3,814,647) and/or Pavlin (U.S. Patent No. 5,026,754). The Office Action asserts Hansson et al. teaches each feature of the claims, except for adding an amino resin to the printing ink to increase bonding between the decorative layer and the wear layer, for which purpose Scher et al.

and Pavlin are cited. In light of the amendment to claim 1 (which was done to clarify that which was intended to be claimed), reconsideration is respectfully requested.

Initially, it appears the Office Action misconstrues the present claims. The Office Action states, "It would have been obvious in the art to bond a paper layer to a base layer." However, the claims actually recite bonding the decor layer to the wear layer. Thus, the stated "incentive," i.e., assuring correct alignment of the base and decor layers, is irrelevant to the presently claimed invention.

1. Scher et al.

Even if Scher et al. were to teach an ink containing an amino resin, combination of the teachings of Scher et al. with those of Hansson et al. would not produce the presently claimed invention.

As shown by Fig. 3 of Scher et al., the thermoset ink is the *uppermost* layer of the resultant laminate. Thus, because "the ink [of Scher et al.] is actually incorporated into the thickness of the top sheet of the laminate" (col. 5, ln. 73-74) the ink cannot bond the decorative layer to the wear layer positioned thereupon, as recited by the present claims. In fact, the purpose of the invention of Scher et al. was to eliminate the fact that "previously, it was always necessary to protect the print by providing the print either beneath an overlay or at the interface of the print sheet and core sheets" (col. 5, ln 75 - col. 6, ln. 2). Thus, Scher et al. actually teaches away from providing an amino resin in the print ink to bond the decorative layer to a wear layer disposed above the decorative layer.

2. Pavlin

The Office Action asserts because Pavlin teaches that is known in the art to provide a binder in an ink resin, it would have been obvious to modify the teachings of Hansson et al. to achieve the presently claimed invention. Initially, Applicants respectfully present that the present claims are not directed simply to inks containing amino resins to function as a binder, but to a

printed decor layer in a decorative laminate, wherein the ink in the decor layer functions as a binder between the decor layer and a wear layer positioned thereon.

The present claims recite increasing the bonding of the decorative layer to the wear layer, in part, with the amino resin present in the ink. However, Office Action fails to explain why one of ordinary skill in the art would look to amino resins to bond the wear layer to the decorative layer.

In contrast, the resinous binders of Pavlin relate to binders to hold the ink on the paper, rather than to binders to join the decorative layer to a second layer. Thus, the purpose of the ink of Pavlin is quite distinct from the purpose of the ink in the presently claimed invention.

Since neither Hansson et al. nor any other cited reference describes that the method described by Hansson et al. resulted in a product which suffered from separation of its layers, the logic of the Office Action could only have resulted from impermissible hindsight, relying upon various statements found only in the present specification. As the Examiner is aware, Applicants' specification is not part of the prior art and cannot be used by the Examiner as teaching either the problem recognized by Applicants nor the disclosed method of solving the problem. Specifically, the Office Action fails to identify any recognition that the printing ink will sometimes cause problems with delamination (present specification, page 1, fourth paragraph). Since there is no recognition of the problem, the solution to the problem cannot be obvious. Reconsideration is respectfully requested.

B. Hansson et al. in view of Yasui et al.

Claims 1, 2, 4, and 6-17 stand rejected under 35 USC § 103(a) as being unpatentable over Hansson et al. in view of Yasui et al. (U.S. Patent No. 4,084,836). The Office Action asserts Hansson et al. teaches each feature of the claims except for the type of ink, and incorporating an amino resin into the ink to increase the bond between the decorative layer and the wear layer, for which purpose Yasui et al. is cited.

The Office Action states that because Yasui et al. teaches a printing ink including an alkyd resin, and such an ink provides increased gloss, hardness, impact resistance, water

resistance, alkaline hydrolysis resistance, excellent oil resistance, chemical resistance and spray resistance, it would have been obvious to use the ink of Yasui et al. as a bonding ink between a decorative layer and a wear layer. Since the ink of the presently claimed invention is positioned between the decorative layer and wear layer, such an ink is protected by the wear layer from the outside environment, and should not be exposed to, for example, water, alkaline hydrolysis, oil, chemicals, or sprays. Thus, such characteristics would not provide no advantages in the presently claimed invention.

Again, since neither Hansson et al., Yasui et al. nor any other cited reference describes that the method described by Hansson et al. resulted in a product which suffered from separation of its layers, the logic of the Office Action could only have resulted from impermissible hindsight, relying upon various statements found only in the present specification. Specifically, the Office Action fails to identify any recognition that the printing ink will sometimes cause problems with delamination (present specification, page 1, fourth paragraph). Since there is no recognition of the problem, the solution to the problem cannot be obvious. Reconsideration is respectfully requested.

C. Claims 6 and 9

Claim 6 recites forming the base layer into the final end user format, i.e., including edges suitable for joining, *prior to* applying the decor and wear layers. Claim 9 recites wherein the paper layer is bonded to the base layer prior to the printing of the decor.

In rejecting these claims, the Office Action simply states such a process step would have been obvious as being “an art recognized effective way of to apply a decorative design to a decor layer.” Applicants respectfully disagree with this unsupported statement. Initially, according to the present invention, the decor layer *is* the decorative design; thus one would not “apply the decorative design to the decor layer.”

Moreover, if providing the base layer into the end user format prior to applying the decor and wear layers were common in the art, the Office Action fails to identify such a teaching.

Again, such logic could only have resulted from impermissible hindsight. Reconsideration is respectfully requested.

D. Claims 11 and 12

Claim 11 recites wherein the wear layer is comprised of an amino resin/cellulose mixture.. Claim 12 recites wherein the wear layer is comprised of one or more amino resin impregnated cellulose layer or layers. In rejecting this claim, the Office Action asserts "A melamine-formaldehyde resin is taken to be a high viscosity resin." However, the viscosity of the resin is not recited by these claims, and the rejection fails to discuss the features actually recited by the claims.

Accordingly, the Office Action fails to identify *in the art* any disclosure of a wear layer including an amino resin/cellulose mixture or one or more amino resin impregnated cellulose layer or layers. Reconsideration is respectfully requested.

IV. Conclusion

As all objections and rejections have been overcome, a Notice of Allowance is respectfully requested. Should any fees be necessary to make this paper, or any paper filed herewith, timely and/or complete, such fees may be deducted from Deposit Account No. 19-4375.

Respectfully submitted,



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